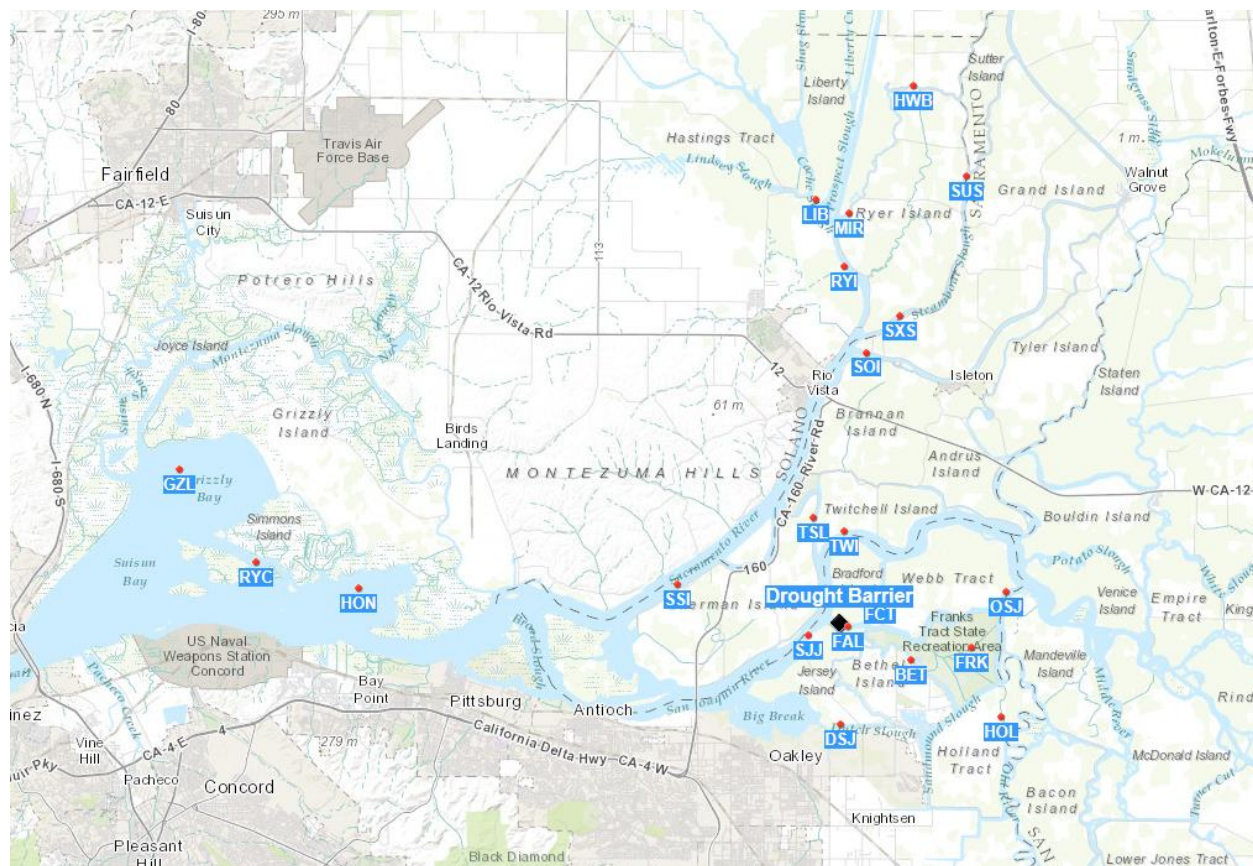


Emergency Drought Barrier Water Quality Monitoring Summary ¹

Weekly Update for July 20 through July 26, 2015

Below is a summary of water quality, flow, and velocity data since the hydraulic closure of the Emergency Drought Barrier (EDB) at West False River on May 28, 2015, with emphasis on trends observed during the past week. The EDB rock placement was completed on June 12, 2015. For additional water quality monitoring data, access the network of CDEC stations at the following link:

<http://dwr.maps.arcgis.com/apps/Viewer/index.html?appid=3be5e0bbe0994b76883b0567f4f6b9e3>



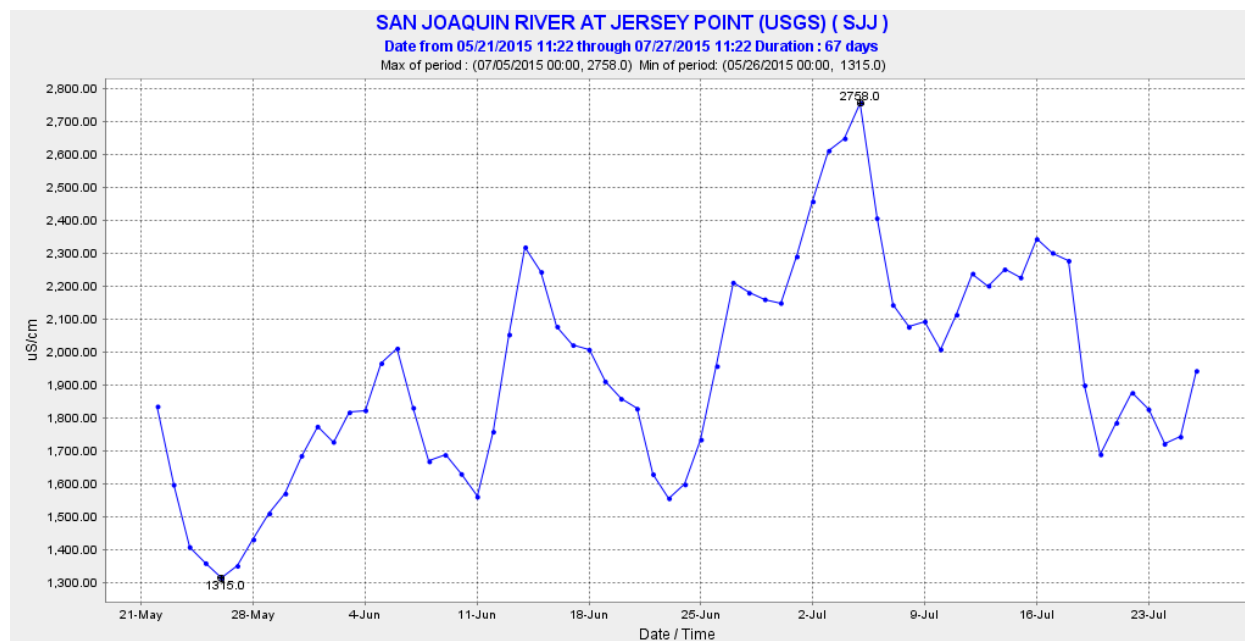
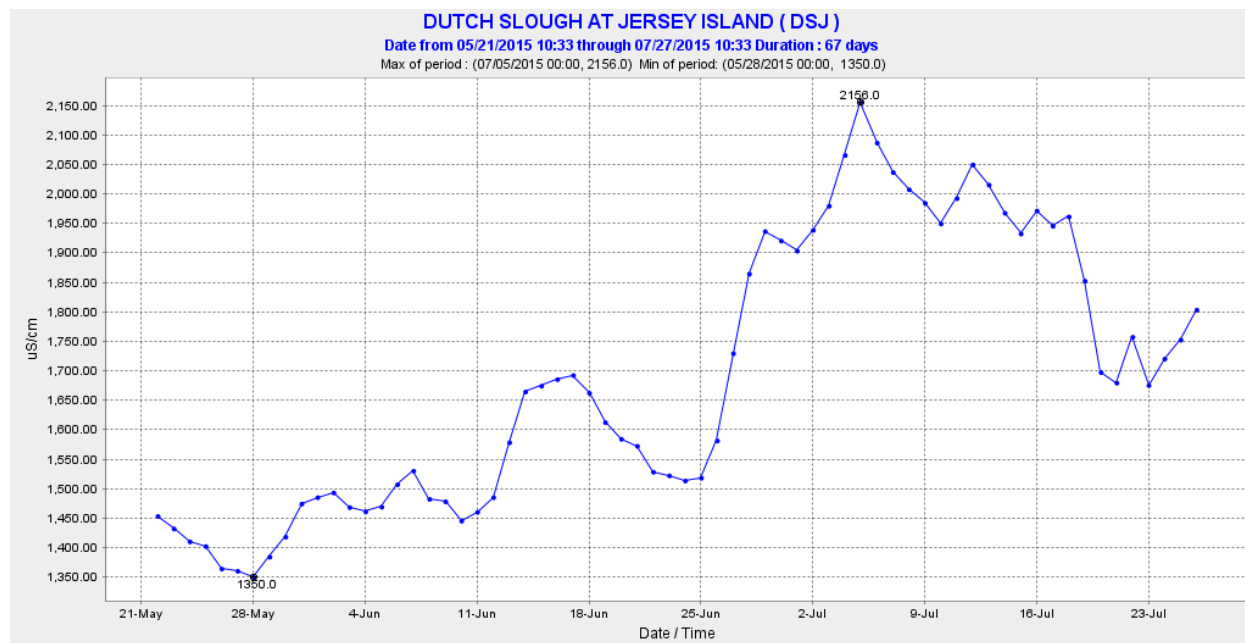
Specific Conductivity

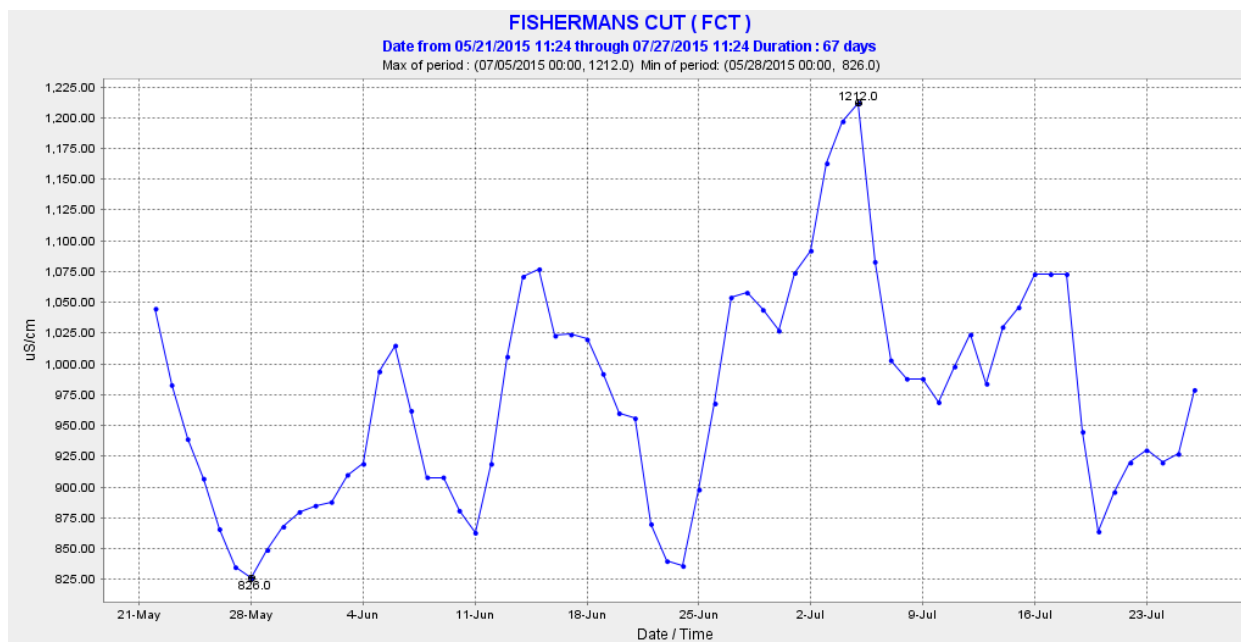
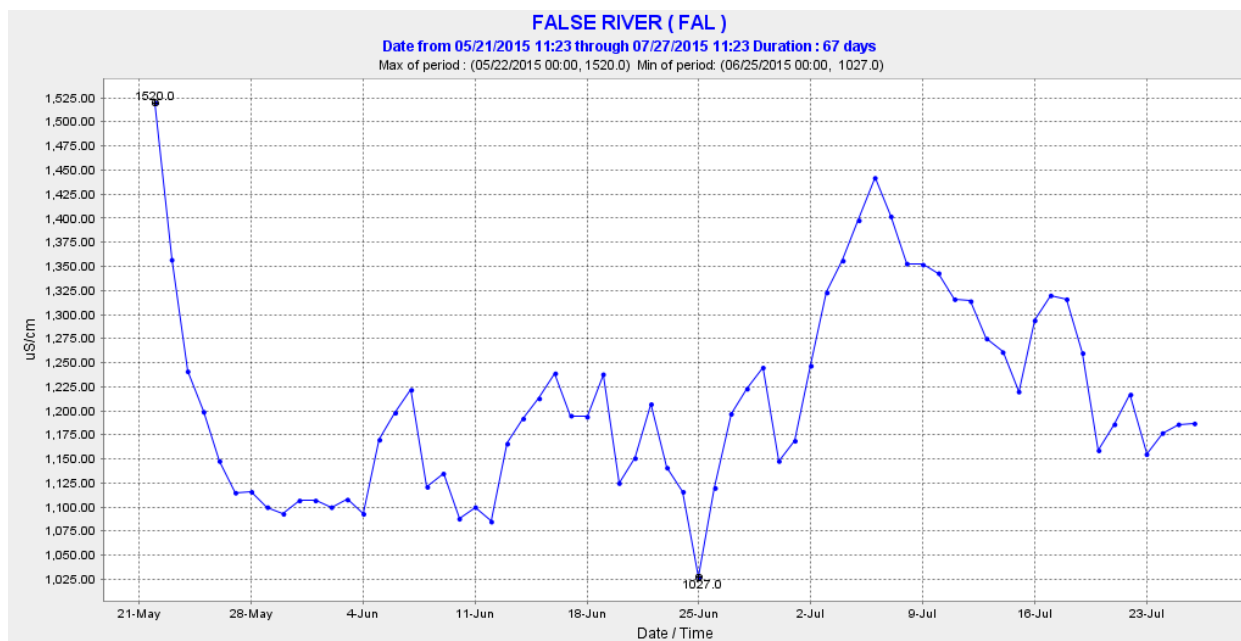
At the end of the week of 7/20/15 – 7/26/15, average daily specific conductivity (EC) levels were very similar to the levels at the end of the previous week. All stations had daily averages within $\pm 50 \mu\text{S}/\text{cm}$ on 7/26/15 compared to 7/19/15, except False River (FAL), which was $73 \mu\text{S}/\text{cm}$ less on 7/26/15 than compared to 7/19/15. Across all stations EC readings dropped at the beginning of the week and began rising again by the middle or latter half of the week.

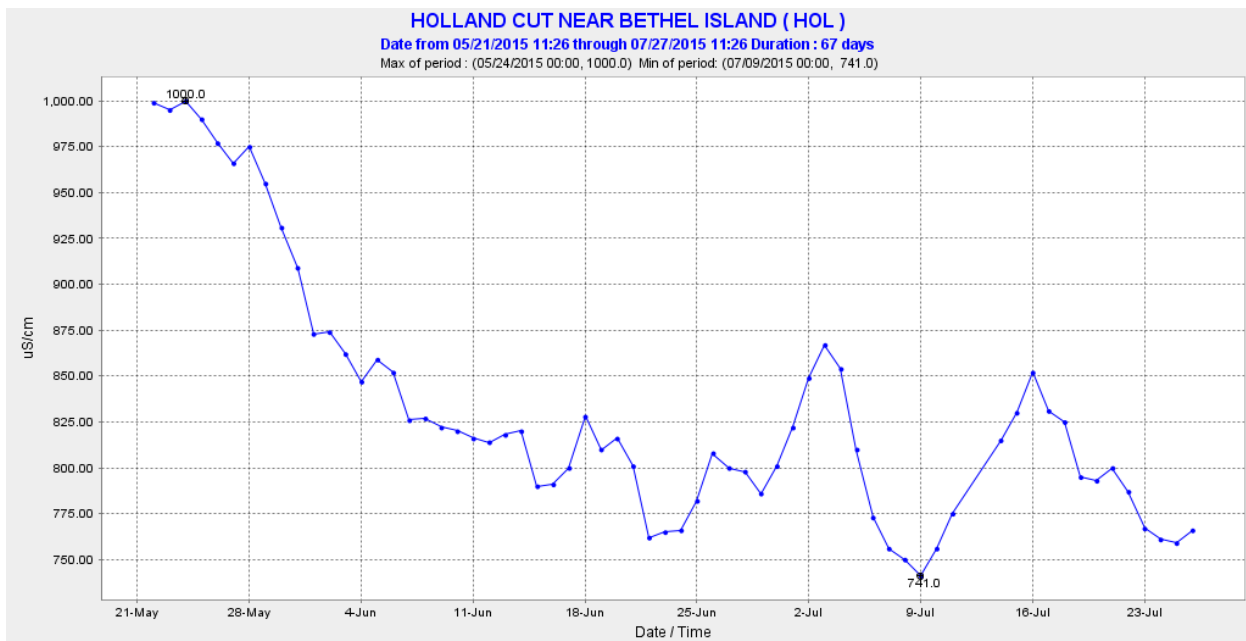
Generally, the daily averages for this week were lower than the averages during the past 3 weeks in July.

¹ All data in this report and subsequent weekly reports posted to California Data Exchange Network (CDEC) are preliminary and have not yet been validated.

Daily average EC values for five stations in the vicinity of the EDB:

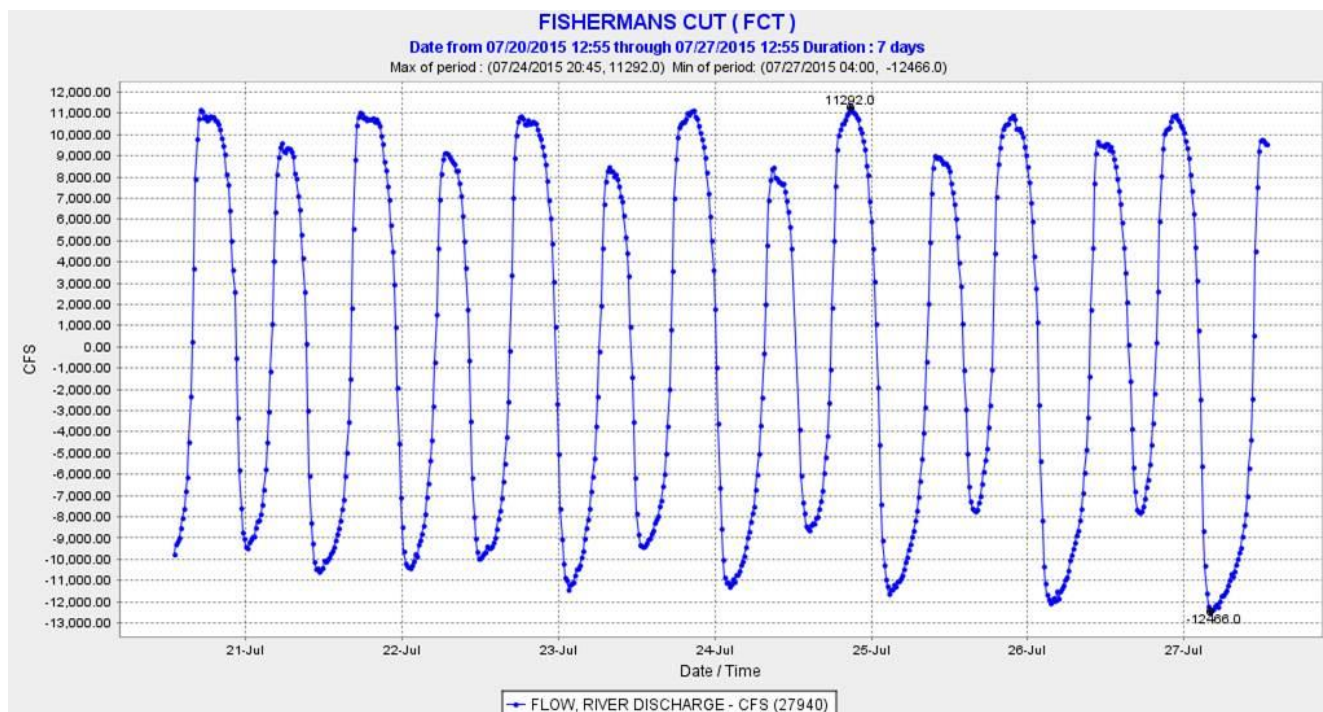
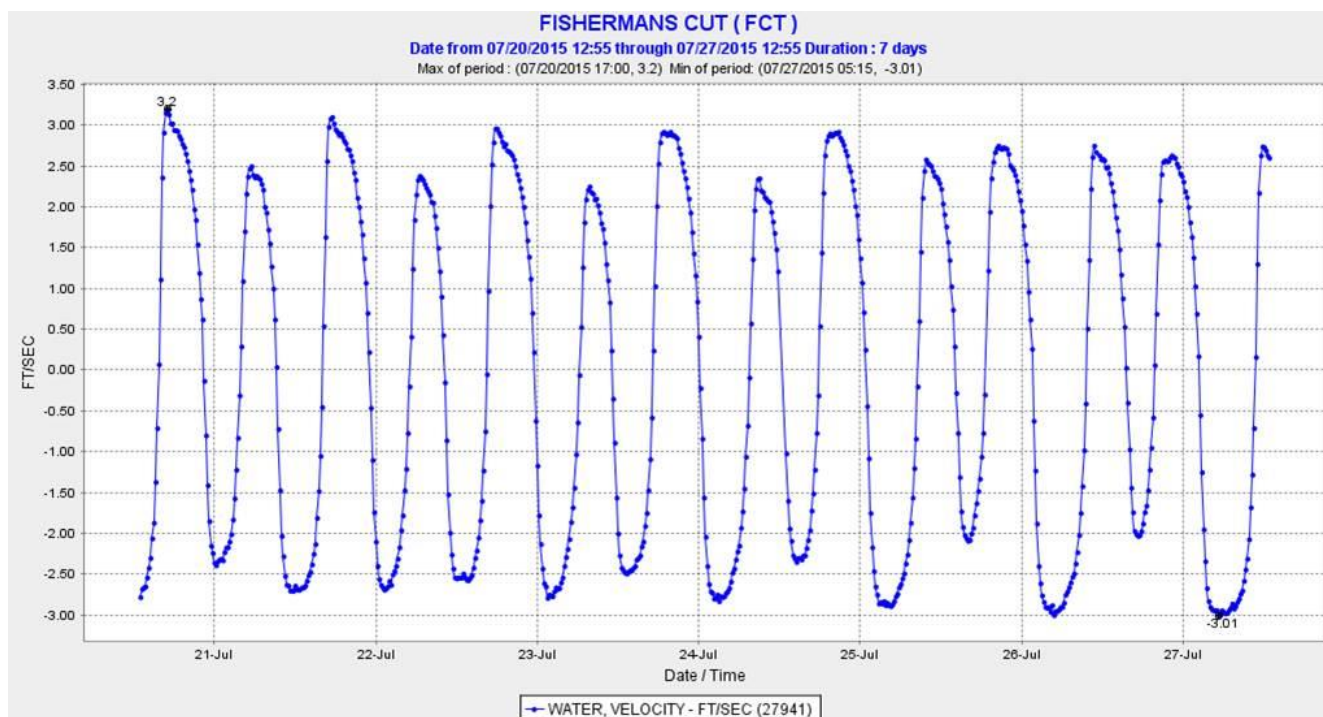






Flow and Velocity

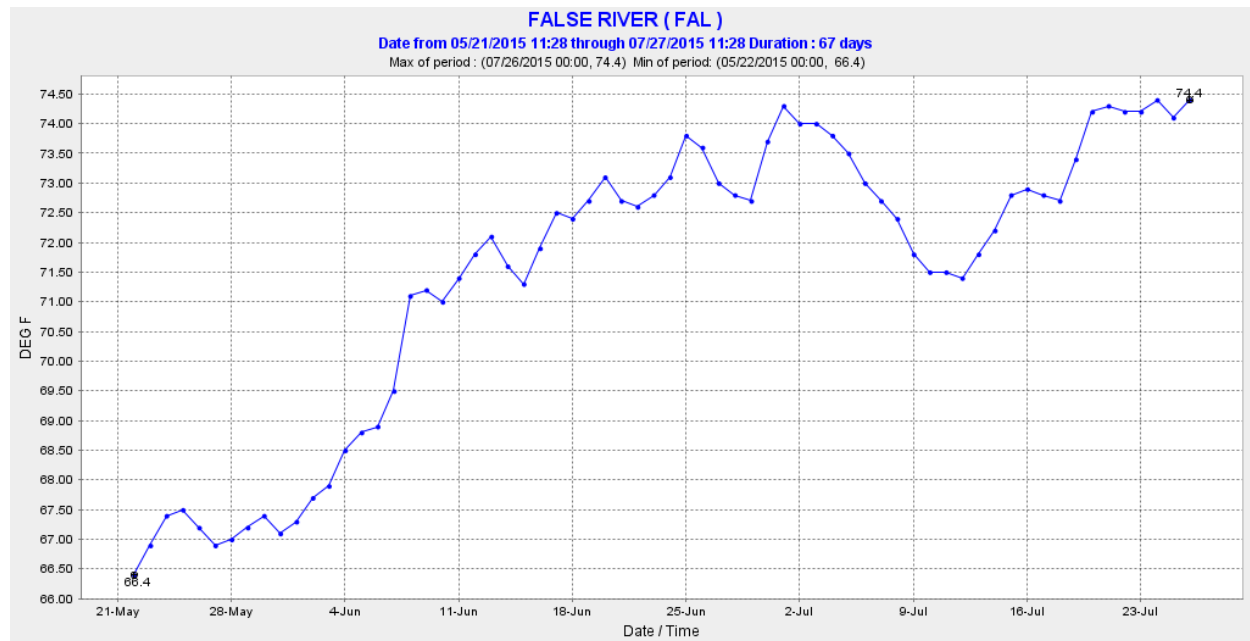
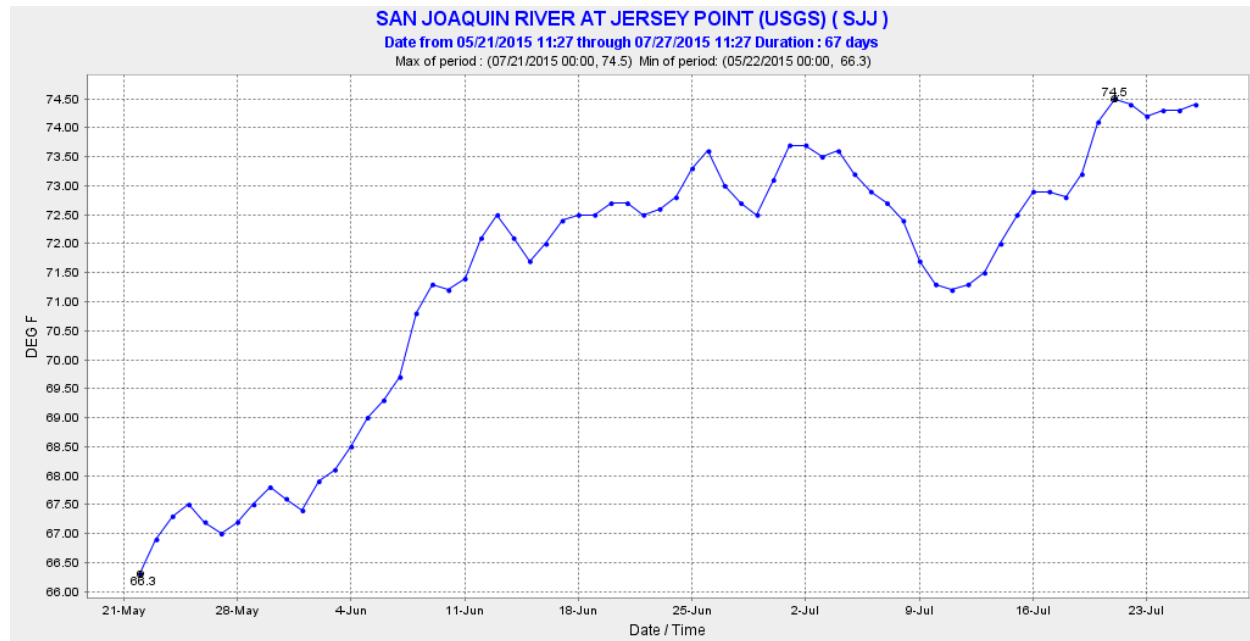
Fisherman's Cut experienced a neap tide during the week of July 20 through July 27. Peak water velocities at the FCT flow station varied between +3.20 ft/s (7/20/15 at 17:00) and – 3.01 ft/s (7/27/15 at 05:15). While the barrier is in place, positive water velocities measured at this station refer to water that is flowing into Fisherman's Cut southward from the San Joaquin River. Thus, last week's peak water velocity of +3.20 ft/s occurred during a flood tide. However, flows varied between +11,292 cfs (7/24/15 at 20:45) and –12,466 cfs (7/27/15 at 04:00) indicating a higher peak flow during an ebb tide. Peak ebb velocities in Fisherman's Cut generally increased in magnitude through the week while peak flood velocities decreased in magnitude.



Water Temperatures

Average temperatures at SJJ and FAL rose 1 degree during the past week.

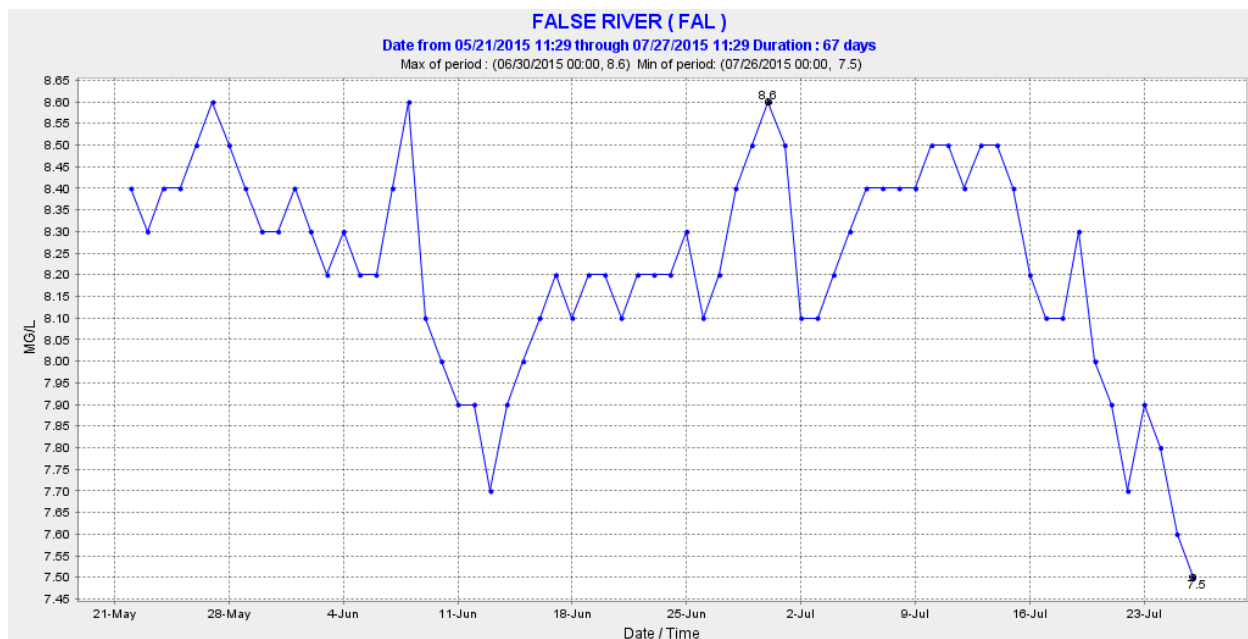
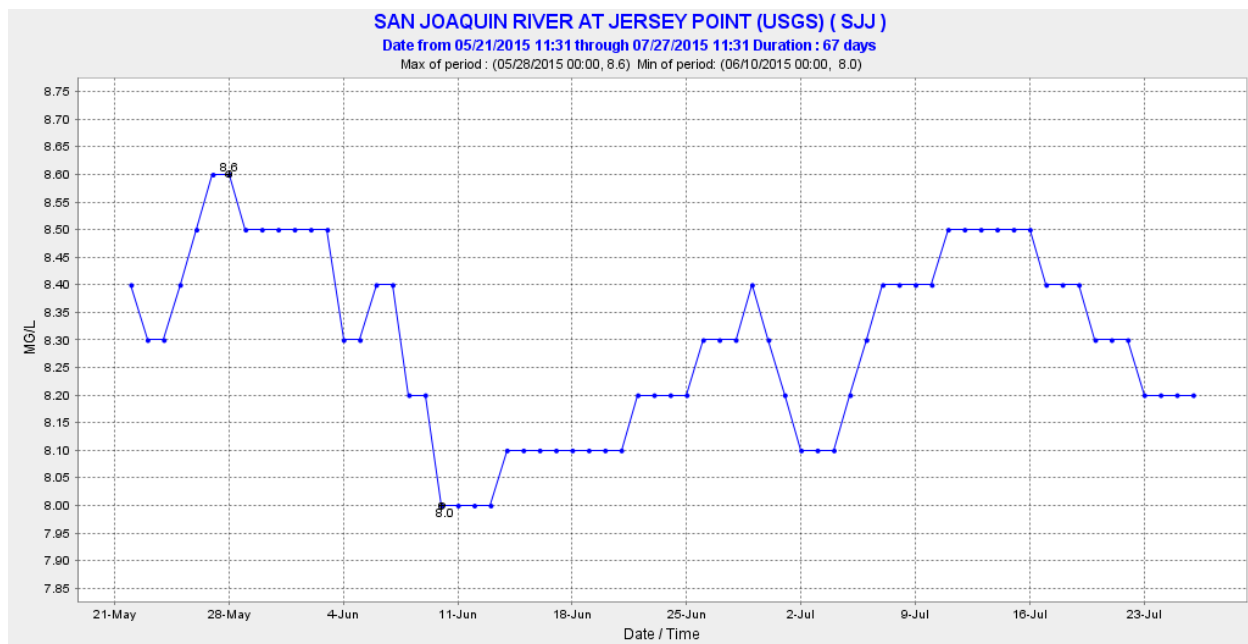
Daily average temperature for stations immediately upstream and downstream of the EDB:



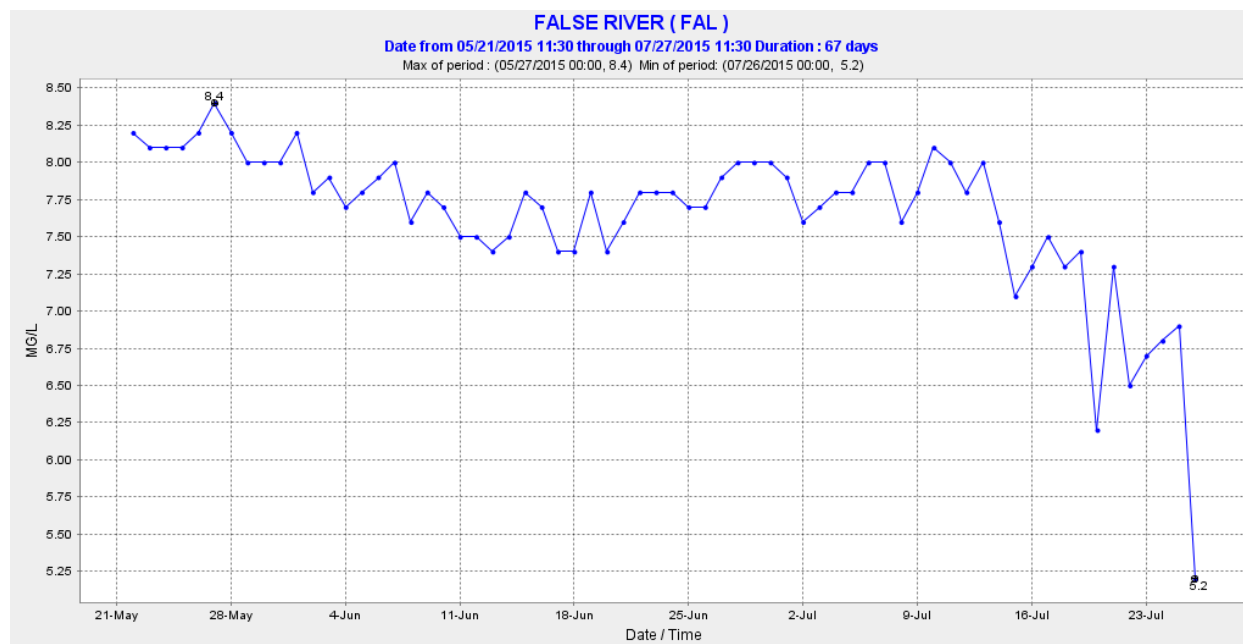
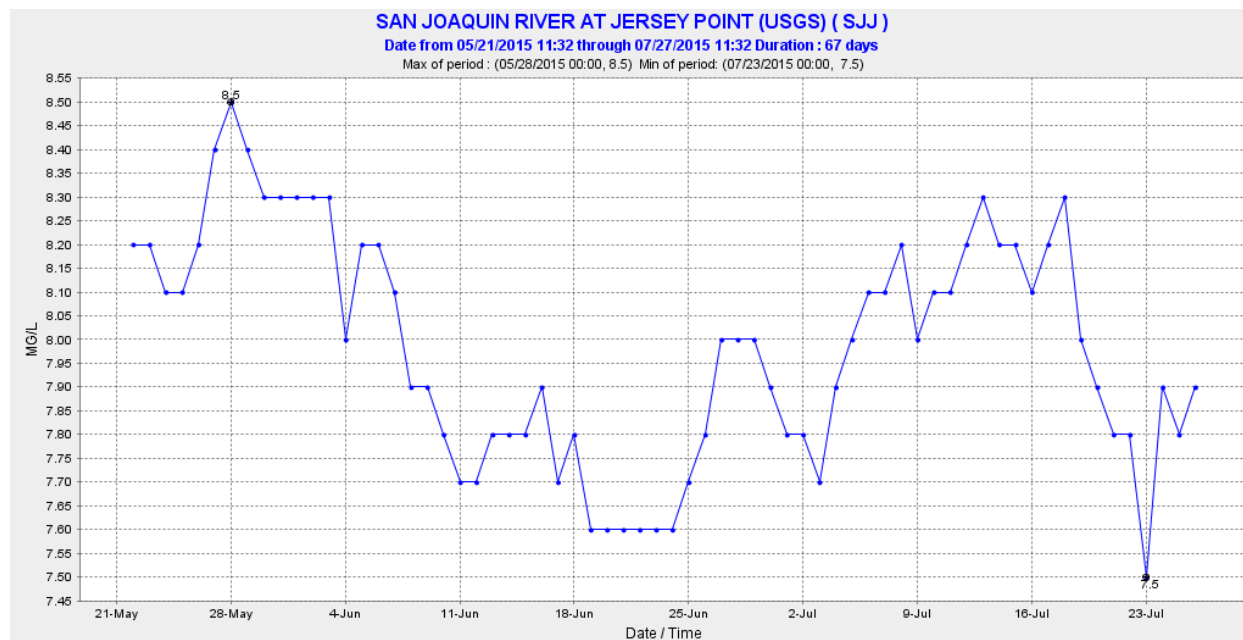
Dissolved Oxygen

Average daily dissolved oxygen (DO) at SJJ varied only slightly during the week and remained above 8.0 mg/L. FAL is experiencing a slight decline in DO levels. The daily average DO on 7/26/15 was 7.5 mg/L compared to 8.3 mg/L on 7/19/15. The minimum DO level dropped to 5.2 mg/L at FAL. This low reading is the only instance of a significant drop in DO and not reflective of a consistent pattern throughout the week. The next lowest drop in DO saw levels decreased to 6.2 mg/L.

Daily average DO for stations immediately upstream and downstream of the EDB:



Daily minimum DO for stations immediately upriver and downriver of the EDB:



Summary of EC data ($\mu\text{S}/\text{cm}$) by station for the period of July 20 through July 26, 2015.

Station	Mean	Median	Minimum	Maximum	Area
Dutch Slough @ Jersey Island (DSJ)	1734	1730	1500	2110	Dutch Slough
San Joaquin River @ Jersey Point (SJJ)	1796	1630	903	3950	Vicinity of EDB
Three Mile Slough at San Joaquin River (TSL)	1462	1440	879	2180	
San Joaquin River @ Twitchell Island (TWI)	1262	1252	647	2133	
Fisherman's Cut (FCT)	920	872.5	619	1411	
False River (FAL)	1181	1180	1060	1300	
Bethel Island near Piper Slough (BET)	925	925.5	905	966	Frank's Tract
Franks Tract Mid	814	815	772	856	
Old River near Frank's Tract near Terminous (OSJ)	624	621	563	814	
Holland Cut near Bethel Island (HOL)	776	760	682	944	
Sacramento River downstream of Isleton (SOI)	221	180	127	678	North Delta/Cache Slough
Steamboat Slough near Sacramento River (SXS)	156	139	131	288	
Cache Slough @ Ryer Island (RYI)	180	178	157	221	
Liberty Island @ Approx Cntr S End (LIB)	185	185	159	213	
Miner Slough (MIR)	143	135	126	188	
Steamboat Slough downstream of Sutter Slough (SUS)	133	133	126	139	
Miner Slough @ HWY 84 Bridge (HWB)	138	135	126	162	

Mean specific conductance ($\mu\text{S}/\text{cm}$) for the period of July 20 through July 26, 2015.

